Framework Concept

The Information Factor within a Comprehensive Approach to Multinational Crisis Management

Final Draft Version 3.0

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14. ABSTRACT
This paper promotes an understanding amongst civil and military partners cooperating in crisis management of the information factor; the requirement for coordinated information activities within a comprehensive and effects-based approach; and the necessity of strategic interagency political guidance for information activities. It addresses issues that are relevant for decision-makers and their analysts, planners, and implementers in crisis management.

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EXECUTIVE SUMMARY

<u>The Information Factor</u>.   Information pervades societies, such that actors and audiences have become increasingly indistinguishable: 'to observe is to be a part'. Every action sends a message, intended or not: *'one cannot not communicate'*. Events are reviewed not by what actually occurs but on the context and by the way in which they are presented, mediated, received and interpreted: perception becomes reality and credibility counts more than content. Information is at the heart of modern societies, which are increasingly reliant on technical and social information systems to function effectively.

<u>The Comprehensive and Effects-Based Approach</u>.   Most security challenges today are addressed by multinational coalitions. The achievement of shared objectives requires the concerted and carefully considered employment of all levers of power. The comprehensive approach seeks the wide-ranging mutual engagement of government and non-government actors at all levels, using all appropriate resources and levers of power to influence a regional environment and create stability. The effects-based approach takes shared objectives, identifies the pre-requisites for meeting them, the nature of system changes (effects) to achieve those pre-requisites, and the activities necessary to achieve desired effects. Common concepts and planning/activity processes make for more effective partnership. A similar approach in the information environment is suggested.

<u>Conclusion</u>.   This paper promotes an understanding amongst civil and military partners cooperating in crisis management of the information factor; the requirement for coordinated information activities within a comprehensive and effects-based approach; and the necessity of strategic interagency political guidance for information activities. It addresses issues that are relevant for decision-makers and their analysts, planners, and implementers in crisis management. The challenge is to agree common processes to enable partners to maximise the benefits of undertaking information activities. It is asserted that partners must address the information factor; otherwise crisis management will be less effective and more protracted. At worse, contrary actors will exploit the information factor toward their own ends. The Framework Concept concludes that a new approach to considering the information factor in crisis management is required. The proposed solution has three key pillars:

- *Systemic Understanding*.   Actors involved in crisis management activities should develop a comprehensive and systemic understanding of the operational environment with specific emphasis on the information factor.

- *Information Strategy*.   Comprehensive, strategic-political and mission-specific guidance should provide the basis for multinational information activities in support of crisis management. An Information Strategy should state the whole-of-government, interagency and multinational approach to the information

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environment, providing mission-specific, strategic, political guidance for civil and military information activities in support of crisis management objectives.

– *Coordinated Information Activities*. All capabilities able to affect the information environment should be integrated through institutionalised co-ordination procedures.

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INTRODUCTION

01. The purpose of this Framework Concept is to promote the understanding of civil and military partners of the importance of the *information factor*, the requirement for coordinated information activities within a comprehensive and effects-based approach, and the necessity of interagency strategic-political guidance for information activities.

02. This document addresses issues that are relevant for decision-makers and their analysts, planners, and implementers in crisis/conflict prevention and resolution across all levers of power. Therefore, customers are multinational actors and organisations participating in interagency crisis management initiatives as well as in concept development.

03. The Framework Concept describes the challenge, introduces the information factor and its context, and derives recommendations on how to address it within multinational crisis management.

The Information Factor

04. Information is understood as an assembly of data in any medium or form capable of communication and use by assigned meaning through known conventions used in symbolic representation.

05. The ability to receive, share and transmit information globally has created societies in which actors and audiences have become increasingly indistinguishable: 'to observe is to be a part'. As such, events have become boundless, determined not by the details of what actually occurs but by the way in which they are presented, mediated, received and interpreted – perception becomes reality.

06. In modern information societies the information factor has evolved to become a decisive element of security-related activities and is paramount in all other areas, as each and every action may affect the information environment.

07. The unlimited availability of information worldwide and the reliability of information systems have created a situation in which no action can be contemplated without considering its potential impact on the information environment.

Information Environment

08. The information environment is the virtual and physical space in which information is received, processed and conveyed. It consists of the information itself and information systems.

09. Characteristics of the information environment include:

– The nature of information is global, overarching and multi-faceted in a sense that it cannot be owned by anyone once in the public domain.

– Despite state-controlled technical and procedural systems to deny access and limit consumption of information to an audience, it is extremely difficult to restrict the worldwide flow of information for an extended period of time.

– Modern information systems comprise an emerging and diverse infrastructure, posing increased challenge to standardisation and interoperability.

– Modern information systems are also subject to rapid technical development, forcing agencies to respond and constantly adapt their capabilities.

– In principle, the means to affect information and/or information systems are available to everybody at low cost.

– The complex interconnectivity of modern information systems makes it increasingly difficult to predict or differentiate between intended and unintended effects, and places the security of own information at risk.

– Modern information systems can be affected anonymously, making it difficult to identify the originators and determine their intent.

– Compliance with legal norms – if such exist at all – is difficult to enforce on modern information systems.

10. Understanding the security environment is the most essential prerequisite for crisis/conflict prevention and resolution, though *poor analysis of the information environment is perhaps the most common error made*.

Information Activities

11. Information activities are actions designed to have an effect on information and/or information systems. They can be performed by any actor and include protective measures.

12. Resources to conduct information activities can be as varied and extensive as the complexity of the information environment. The scope and scale of possible information activities also relates to the basic features of information – development of knowledge, communication, and automation – and covers a multitude of actions to create effects on understanding, will and capabilities, including human as well as technical system elements.

13. Information activities include media communication, direct or face-to-face communication, as well as other actions and operations conducted to impact the information environment.

14. Next to information activities other actions will – even though not primarily designed for this impact – inherently cause effects in the information environment. Consequently, the *coherence of words and deeds* needs to be considered alongside the *determination of information activities* in order to comprehensively capture effects in the information environment.

15. Impact, effectiveness, as well as efficiency and sustainability of effort in crisis management require the integrated application of all activity areas, and continuous consideration of the information factor throughout all related processes – analysis, planning, execution/management and assessment/evaluation.

16. Information activities will most often be employed in conjunction with other activities (active or deterrent) to form a synergistic whole across all levers of power. These efforts must be closely coordinated in order to portray a consistent image of the actors in multinational crisis management and enhance their effectiveness.

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Challenge

17. In multinational crisis management, partners lack integrated processes and organisations to plan, execute and assess information activities in an effects-based, multinational and interagency context based on a comprehensive and systemic understanding of the information environment and using all available and appropriate means. For instance,

– plans and operations concerning effects in the information environment are often inadequately harmonised among actors;

– interagency co-ordination processes for activities and effects in the information environment are not institutionalised, but rather depend on the personality of actors, occur by chance and/or inconsistently;

– decision-makers are often unaware of the scope and scale of options to create effects in the information environment;

– decision-makers and their staffs currently lack the means, methods and training to gain and maintain appropriate situational awareness and understanding of the information environment.

18. This challenge has been explored through literature review; academic studies (comparison of extant concepts, general capability analysis); analyses of lessons learned from current and recent real-world operations/missions; and experimentation of initial draft concepts in multinational Concept Development and Experimentation (CD&E) programs. See Bibliography for further details.

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OPERATIONAL CONTEXT

Multinational Crisis Management

19. The process of globalisation is affecting every state and society around the world. The evolution and progressive networking of international trade, investments, travel, information and knowledge are opening up new opportunities. The downside of the free exchange of information and ideas is the impact of state or non-state actors appropriating and misusing sensitive knowledge, technologies and new capabilities.

20. The security environment in the 21st Century is characterised by fundamental changes: it is more complex and involves a great deal of uncertainty about potential origins of challenges to stability and peace. Risks and threats are more diverse and tend to challenge our current security-oriented capabilities. This results in profound changes to crisis/conflict prevention and resolution, including multinational interventions[1].

21. Most crises today involve multinational coalitions (perhaps based on standing alliances) rather than a single nation approach. Mandated by an international body such as the UN, partners tend to have common goals and regional interests, and usually coalesce around a lead nation to achieve a specified desired end state.

22. The achievement of national and/or multinational objectives requires the concerted and carefully considered employment of all levers of power in a comprehensive approach.

The Comprehensive Approach

23. Security policy development is not determined primarily by the military or by military interests, but by considering a full spectrum of factors including social, economic, ecological and cultural conditions. It is therefore normally not possible to guarantee security through unilateral national action, or with armed forces only.

24. The comprehensive approach incorporates government and non-government actors, using all appropriate national and international levers of power, to shape a regional environment and create stability. It should be based on a shared assessment and common goals. The comprehensive approach seeks to broaden the context of pre-crisis, crisis and post-crisis management by comprehensively engaging all relevant ministries/departments, agencies and organisations in an interagency framework.

25. The comprehensive approach is relevant to the strategic, regional and local levels, and is applicable from pre-crisis situations to post-conflict reconstruction and the transition of responsibility to local authorities.

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[1] The term 'intervention' is not intended to imply a purely military intervention. It is intended to describe inter-agency activity by a broad range of civil and military actors in an interagency context.

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26.   Given the complexity and interdependency of actors and nations, it is necessary to achieve greater harmonization among all appropriate actors in the analysis, planning, management, and evaluation of interventions in complex contingencies and emergencies. Clear and achievable strategic-political guidance must be in place to ensure that the desirable early co-operation or collaboration between interagency actors works toward common aims. Compatible approaches to planning and implementation across organizations will be required. In addition, flexibility will be necessary, and approaches to analysis, planning, execution/management, and assessment/evaluation should be tailored based on the organisations involved and the situation on the ground.

27.   No single expert can have an intuitive grasp of all the fields of knowledge that are relevant to crisis resolution. Where the relevant factors are diverse and complex – as they usually are in the security environment – intuition alone is incapable of weighing them and reaching a sound decision. In general, and especially when there are several alternatives, Systems Analysis is essential for understanding a particular situation and its root causes as well as considering a range of solution options.

Levers of Power

28.   Opportunities and risks have to be addressed with a suitably matched range of instruments or areas of activity. These include diplomatic, economic, development policy and policing measures as well as military means, which, if called for, may include the use of force. The latter entail dangers to life and limb and can have far-reaching political consequences.

29.   National approaches to implementing a comprehensive approach may vary, especially in consideration of whether information is a lever in its own right or a cross-lever factor or effect multiplier. There are also different national approaches to the extent of state control of information and the media. However, it is clear that information is a powerful element in crisis resolution, irrespective of which model of power is used.

30.   Information is pervasive across all areas of activity. As a strong element of influence it spans the scope of civil and military, national and multinational, as well as governmental and non-governmental activities. It involves the consideration of both the inherent and deliberate informational impact of actions. All levers of power and related activities affect the information environment (see Figure 1).
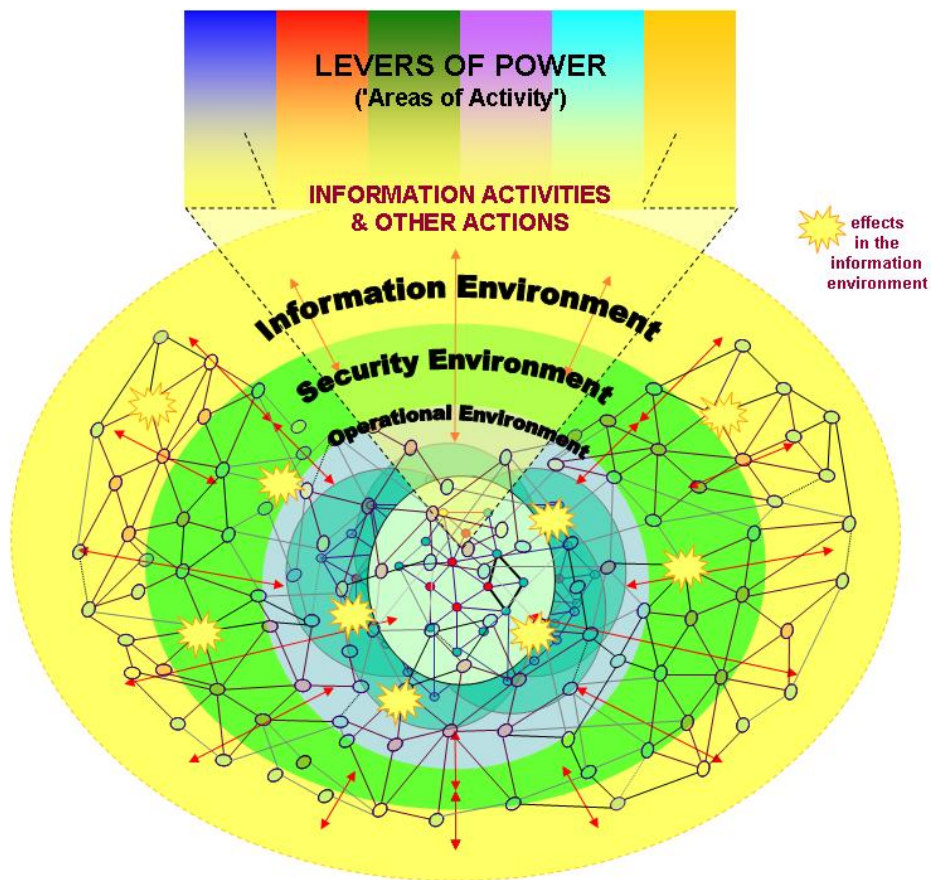
Figure 1: Information and Levers of Power

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SCOPE OF ACTIVITIES AND EFFECTS

This chapter describes the academic foundation behind this paper, and elaborates on activities and effects that constitute the information factor within a comprehensive approach to multinational crisis management.

The Importance of Perception

31. *Every behaviour is a kind of communication.* In principle everything that can be perceived by other people includes information content, thus leading to the impossibility of not communicating as a decisive human factor: *One Cannot Not Communicate!*

32. *Social systems are systems of communication.* Subjective meanings are socially constructed. Meanings interrelate with objective actions, and are shared and communicated by symbols (information), i.e., through concepts within the mind that represent reality.

33. *The meaning and value of information depends on the context* in which the information is placed by its interpreters. Identical information in the same situation may be interpreted differently by the receivers of the information; also, information of seemingly lower relevance in one situation can become decisive in another situation, and *vice versa*.

34. *Communication is a 'two-way-street'.* Societies are based on shared systems of cultural conventions. In multinational crisis/conflict prevention and resolution people may easily misinterpret each others' motives based on different conventions. Prejudice is a short-cut decision-making tool. Fear and anger may trigger aggressive tactics, particularly if the intervention is staged under the gaze of the news media. Understanding the counterpart – his beliefs, attitudes, values, expectations, and norms of behaviour – is a prerequisite for effective cross-cultural communication.

35. *Credibility counts more than content.* Effective communication must build and maintain credibility and trust through an emphasis on consistency, veracity and transparency both in words *and* deeds: in the long run, no media outlet is likely to have the same impact on an audience as our actions.

Effects in the Information Environment

36. The information environment is not a parallel universe or something you could look at independently from physical action or existence. Information is everywhere: wherever humans act and perceive, they create information to represent reality. Thereby information becomes a subjective reality itself.

37. Considering the operational environment from a systemic perspective, systems in the information environment appear in diverse roles; e.g., as:

– systems in which effects are intentionally created by (information) activities directed at (elements of) the system;

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- systems in which effects occur unintentionally from activities directed at other systems;

- systems which are used as means to act on other systems.

38. The capability of human actors to understand the operational environment heavily depends on the availability of – in terms of quality and quantity – appropriate information and the functionality of information systems. Therefore, shaping the information environment will consequently affect the capabilities and understanding of actors and, ultimately, their will and behaviour.

39. Effects in the information environment can result from a multitude of actions, including information activities and other operations and actions, conducted by governmental and non-governmental, civil and military actors.

40. In order to become effective, actions affecting the information environment require a minimum of internal and external co-ordination.[2] However, because of the multitude of actors and actions, the identification of responsibilities and appropriate mechanisms for coordinating actions and effects in the information environment is often challenging, in particular in complex security situations involving a range of instruments in a comprehensive approach.

41. Within the information environment, effects on cognitive or social systems may follow a far more complicated cause-effect relation than those on physical/technical systems (such as information infrastructures). Human behaviour is less predictable than the behaviour of technical systems since human behaviour depends upon psychological predispositions, motives, socio-cultural and environmental factors. Mental models and actions of individuals, groups, and organisations are guided, amongst others, by underlying structures in the social system – cultural and religious aspects, for example. As a result, effects in the information environment may take a long time to be created, in particular if they involve building and maintaining perception, followed by desired change/consolidation of behaviour.

42. While nations, institutions and organisations participating in crisis management conduct their respective actions based on their own national and organisational objectives, increased co-ordination has to be accomplished so that the actions and resulting effects in the information environment of different actors are coherent and consistent. This is even more critical than in other policy areas, as the nature of multinational security assistance to foreign countries requires that the differences in engagement strategy be minimised. Information activities can influence the course of events and thus must be seen as an integral part of the overall political effort.

43. Two overriding and partly conflicting requirements have become more acute: conducting relevant and timely information activities, attuned to the crisis country/region; and ensuring maximum coherence among the multiplicity of actors involved.

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[2] 'Internal co-ordination' means co-ordination within an organisation or set of capabilities; 'external co-ordination' means co-ordination between organisations or different sets of capabilities.

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The Informational Consequences of Actions

44. There are three basic functions of information that need to be considered:

–   Information is data interpreted in a context, and in turn, enables the linkage of data, its integration into a situational context, and thus is the basis for the development of knowledge – this function is a prerequisite for developing situational awareness and understanding.

–   Information enables humans to communicate and act in a social environment – this function is a prerequisite to functions such as leadership and command & control.

–   Information enables automated systems to function without direct involvement of human reasoning – this function constitutes a decisive factor for new technological advances, including the whole range of sensors and effectors.

45. Information is inherently embedded in every behaviour, able to shape the information environment positively or negatively at any time. It is a means for deliberate action to create effects in the information environment, and essential for influencing the operational environment at all levels of engagement – be it coincidentally or deliberately applied.

46. Because of the information content of every (perceived) activity, every action may also influence the security environment as an inherent shaper/enabler/force multiplier of all behaviour and activities focused on crisis prevention and/or resolution.

47. Effects in the information environment may result from information activities (deliberate) as well as from conventional action (inherent); they may be created intentionally or unintentionally, and be desired or undesired (see Figure 2). These dimensions must be considered as an integral part of the overall interagency effort in crisis management – in conjunction with other activities (preventive, active or reactive).
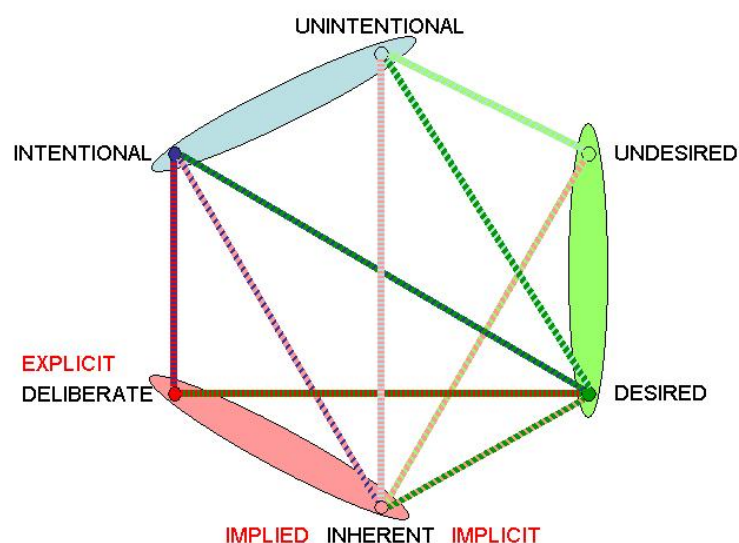

Figure 2: Three Dimensions of Effects in the Information Environment

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The Role of Communication and the Media

48.   Whilst it is commonly understood that the intentional use of information, such as through communication in the news media or for public affairs purposes, is desirable, it is often forgotten that everything that can be perceived by other people bears information content, as it is encoded and interpreted through symbolic interaction. Consequently, when drafting guidance for information activities one should take into account that actions and behaviour are capable of delivering messages as well – not just the media.

49.   The distinction between the strategic, regional and local levels of planning and implementation are blurred. This is particularly true in the field of communication, where videos and images posted on the Web – or the potential to do so – can often temporarily dominate national security decision making. With the aggressive use of technology, local events can have an immediate international impact.

50.   Any action or behaviour is likely to have a complex informational impact, but the perception of events and facts can only be influenced by communication and media activities to a limited extent.

The Role of Information Technology

51.   Information Technology (IT) is a term that encompasses all forms of technology used to create, store, exchange, and use information in its various forms: business data, voice conversations, still images, motion pictures, multimedia presentations, and other forms, including those not yet conceived. It is a convenient term for including both electronic communications and computer technology in the same phrase.

52. Modern information systems have a diverse technical infrastructure, able to accommodate legacy systems and posing an increased challenge to standardisation and interoperability. They are also subject to rapid technical development, forcing agencies to respond and constantly adapt their IT capabilities.

53. IT capabilities and their evolution are driving what has often been called 'the information revolution' that created information societies. It is an inseparable factor of information systems – facilitating and often exclusively enabling certain functions related to information. However, technical capability is only a means to an end, and the transmission of information is driven by human needs. Our understanding of information activities must nevertheless embrace both human and technological systems.

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CONCLUSION

54. In essence, what is required to meet the challenge outlined above is a new 'mind-set' – an alternative intellectual approach to crisis management considering the information factor throughout analysis, planning, management/execution and evaluation/assessment. The proposed solution has three key components:

- <u>Systemic Understanding</u>: Actors involved in crisis management activities should develop a comprehensive and systemic understanding of the operational environment with specific emphasis on the information factor.

- <u>Information Strategy</u>: Comprehensive guidance should provide the basis for multinational information activities in support of crisis management. An Information Strategy should state the whole-of-government, interagency and multinational approach to the information environment, and provide mission-specific strategic and political guidance for civil and military information activities in support of crisis management objectives.

- <u>Coordinated Information Activities</u>: All capabilities able to affect the information environment should be integrated through institutionalised co-ordination procedures.

Improve Situational Awareness

55. One of the basic tenets of effects-based thinking is the need to gain a systemic understanding of the operational environment. Systemic understanding promotes situational awareness and general understanding; these in turn, facilitate identification of relevant knowledge gaps and related information and analysis requirements.

56. Systems Analysis of the operational environment provides the basis for systemic understanding; it should be applied and integrated throughout and as early as possible. Systems Analysis explores the complexity of the information environment by understanding it as complex, adaptive, socio-technical system of systems. It helps to focus on the most relevant factors, to differentiate between symptoms and causes, and to exploit all relevant sources of information.

57. Systems Analysis promotes the integration of the information factor in crisis prevention and resolution efforts.

Provide Comprehensive Guidance

58. Every area and level of crisis/conflict prevention and resolution efforts will have its particular responsibilities and mechanisms. Information activities – within the scope of any area of activity – will need to relate back to overall direction and guidance, i.e., to an Information Strategy. It must be coordinated between governments and provided through national government authorities.

59. Crisis management operations require specific as well as robust arrangements for information activities. Information activities should be integrated within the

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framework of strategic-political guidance and be able to adapt swiftly to changing needs. Individual nations will have full responsibility for implementing information activities affecting their domestic audience. Nations may undertake additional information activities, provided they are consistent with the agreed strategic-political guidance.

60. It is suggested that such guidance should be developed through multinational interagency planning and articulated as an integral part of the resulting strategy and implementation plans.

Institutionalise Co-ordination

61. For coherent engagement in crisis interventions it is essential that allies and coalition partners coordinate information activities in support of a multinational Information Strategy at all levels from the early stages of the strategic-political planning process. This includes building a corporate identity to present a coherent image towards external audiences.

62. The conduct of coordinated information activities requires specific procedures and structures. Official bodies should be employed to establish operational connections between civilian and military organisations, departments and agencies to improve planning and co-ordination of information activities within and between each execution area and lever of power.

63. Partners should also coordinate information activities with International Organisations (IOs), host nations and their agencies, and other international missions operating in the crisis region, at the appropriate levels.

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GLOSSARY

Areas of Activity

National or organisational means to enforce political will or exert influence on others, applicable to resolve a conflict, including political, diplomatic, economic, informational, developmental, military, law enforcement activities, state-led/institutional humanitarian assistance and civil administration support. (Sometimes also referred to as 'instruments of power'.)

[MNIOE]

Communication

Communication is a process for the exchange of information between individuals to convey meaning through a common system of signs (natural, universal), symbols (by human convention), or behaviour. It may occur verbally and/or non-verbally, consciously or unconsciously, with the potential to affect change.

[Based on: Merriam-Webster's Medical Dictionary: http://www.m-w.com/dictionary/Communication and www.regent.edu.]

Information

An assembly of data in any medium or form capable of communication and use by assigned meaning through known conventions used in symbolic representation.

[Based on: Effects-Based Approach to Multinational Operations CONOPS (Version 1.46, dated 23 Jan 08)]

Information Activities

Actions designed to affect information and/or information systems. They can be performed by any actor and include protective measures.

[MNIOE]

Information Environment

The virtual and physical space, in which information is received, processed and conveyed. It consists of the information itself and information systems.

[MNIOE]

Information Society

A society in which the creation, distribution, diffusion, use, and manipulation of information is a significant economic, political, and cultural activity.

[MNIOE]

Information Strategy

The Information Strategy states the interagency and multinational approach across all levers of power to crisis/conflict prevention and resolution in the information environment. It provides mission-specific strategic and political guidance for civil and military information activities in support of mission objectives.

[MNIOE]

Information Systems

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Socio-technical systems for the collection, processing and dissemination of information. They comprise personnel, technical components, organisational structures, and processes that create, collect, perceive, analyse, assess, structure, manipulate, store, retrieve, display, share, transmit and disseminate information.

[MNIOE]

Information Technology

Information Technology (IT) encompasses all forms of technology used to create, store, exchange, and use information in its various forms (business data, voice conversations, still images, motion pictures, multimedia presentations, and other forms, including those not yet conceived). It is a convenient term for including both electronic communications and computer technology in the same word.

[Based on http://searchdatacenter.techtarget.com/sDefinition/0,,sid10_gci214023,00.html]

Instruments of Power

See 'Areas of Activity'.

Media

A medium is defined as a carrier of something. Media content may comprise art, reports of facts, and expressions of ideas or opinions in a form that allows these to be consumed independently (in time or in place) from their creation. In this context 'the media' refers to organisations or persons who gather and disseminate news, and the means by which news is transmitted.

[Based on: http://www.reckon.co.uk/open/A_definition_of_the_media_sector and MC 457/1 – NATO Military Policy on Public Affairs]

Security Environment

A complex political-military web of regional, cultural, and political competitions and conflicts, involving threats to vital interests posed by a variety of actors.

[MNIOE]

Systems Analysis

Systems Analysis is a method which defines a network of elements, their relations and interactions, evolving in space and time, and thus allows a valid contextual assessment of objectives, sequences of effects and chains of actions. The result of Systems Analysis is a comprehensive modelling of the operational environment with its system dynamics and feedback loops. Systems Analysis provides a description of effects and exposes both intended and unintended consequences.

[DEU Bundeswehr Centre for Transformation: Framework Concept for Knowledge Development, Draft Version 1.0, 12 January 2007]

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